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EXAMINER

KOENIG, ANDREW Y

ART UNIT PAPER NUMBER

2611

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/396,429

Applicant(s)

HENDRICKS ET AL.

Examiner

Andrew Y Koenig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-10,14,16,18,19,23-43 and 45-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,14,16,18,19,23-43 and 45-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 10, 51-57, and 60-65 have been considered but are moot in view of the new ground(s) of rejection.
2. Applicant's arguments filed 01 February 2005 have been fully considered but they are not entirely persuasive.

Claims 1, 3-9, 14, 16, 18-19, and 23-29

The applicant argues that nowhere in the cited references (Graczyk, Banker, Palazzi, and Granger) is there any teaching or any suggestion that a hardware upgrade for a set top terminal may include a modem. The examiner disagrees; Granger teaches the use of a switching modem designed to be plugged into a slot of the set top converter, which is an upgrade for a set top terminal. Due to the close relationship of personal computers and set top terminals, one would readily recognize that a modem in a personal computer could be implemented as a hardware upgrade into a set top terminal. Prior art, U.S. Patent 5,437,052 to Hemmie et al. discloses that a set top converter could comprise a personal computer (col. 4, ll. 20-22). Consequently, the integration of concepts of a personal computer is portable to that of set top terminals. Graczyk and Granger, a computer and a set top share similar platforms and both provide upgrades to a television displaying devices. Consequently, the combination of Graczyk and Granger along with other features of Banker and Palazzi is proper. The examiner further notes that additional functionality is an upgrade (whether it is separate

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or contained within the device), in that it has more functionality than the previous devices.

Further, the applicant argues that manufacturers of set top terminals, and manufacturers of the workstations were considered completely distinct industries. The examiner disagrees; Graczyk teaches a workstation that provides television functionality, which is evidence of a crossover of technologies of computers and set top terminals. It may be true that the manufacturers considered these as distinct industries, however this is irrelevant in that there is evidence (in the form of a patent) that combines the two.

The applicant argues that the combined references fail to address and solve the problems that the Applicant's invention solves. In response to applicant's argument that the applicant's invention is solved by providing the flexibility to upgrade the set top terminals with a modem on an as-needed basis, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Further, the examiner notes that other benefits can be derived from an upgrade as disclosed by Granger, specifically the set top is less expensive and bulky along with an overall cost reduction (Granger: col. 4, ll. 45-50).

Claims 30-42, 45-50, 55, and 58-59

The applicant argues that Banker reference is silent with regard as to whether the modem is installed in the subscriber terminals as a hardware upgrade to the subscriber terminals. The examiner disagrees; there is no language in the claims to necessitate how the hardware upgrade is installed in the device. Consequently, the mere presence of a modem is a hardware upgrade relative to prior art systems without a modem.

Priority

3. This application repeats a substantial portion of prior Application No. 07/991,074, filed 09 December 1992, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

The applicant claims benefit of the instant application to a divisional of 07/991,074 and 08/160,194 (wherein 08/160,194 is a continuation-in-part of 07/991,074). It is unclear how the instant application is a divisional 07/991,074 in that the instant application adds disclosure not presented in the 07/991,074 (parent) application.

Claim Objections

4. Claim 42 and 64 are objected to because of the following informalities:

Claim 42 appears to have a typographical error in the last line of the claim (line15), the claimed "andlor" will be treated as "and/or."

5. Claim 64 recites the limitation ""said upgrade decryption module" in lines 7-8.

There is insufficient antecedent basis for this limitation in the claim. Consequently, "said upgrade decryption module will be treated as, "said upgrade" for the rest of this office action.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3-10, 14, 16, 18, 19, and 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graczyk in view of Banker, Palazzi, and Granger.

Considering claims 1, 14 and 24-25, Graczyk discloses a system comprising:

- a) a television program delivery system (broadcast or cable TV) (col. 5, lines 62-68);
- b) a terminal (24,26) having a microprocessor and comprising a receiver (col. 4, line 63-66) adapted to receive at least some of the television program signals;
- c) a hardware upgrade (12) comprising:
 - (c1) an interface (16450 interface) (col. 7, lines 9-18) to the terminal; and

(c2) a modem (104) connected to the interface capable of communicating with one or more headends (central facilities), wherein the RC224AT processor (claimed microprocessor) is connected between the interface (16450) and the model (10464), see figure 2, col. 6, lines 24-38.

Further, Graczyk teaches that the upgrade circuit (44) is insertable into the computer via an ISA bus (col. 6, lines 62-67, figure 41).

Although Graczyk discloses a multipurpose television terminal (24,26) and that various modifications and alternative embodiments are apparent (col. 36, lines 14-20), he fails to specifically disclose a set top terminal having a microprocessor instructions for prompting generation of menus and a hardware upgrade comprising communicating and downloading data from one or more headend to a local storage, and wherein the settop terminal receives television program signals based on subscriber input as recited in the claims.

Banker discloses a system comprising:

- a) a settop terminal (40, figure 1) having microprocessor (128,136) instructions for prompting generation of menus and comprising: a television program receiver (100,150) for receiving television programs from one or more headends (10); and
- b) a modem (col. 4, lines 40-50) capable of communicating with one or more headend (10), wherein the receiver receives television program signals based on subscriber input (see the entire reference including but not limited to col. 4, lines 40-57); and wherein modem downloads data from one or more headends to a local storage (col. 6, line 59 – col. 7, line 3 and col. 7, lines 24-28).

Banker's system facilitates an efficient two-way communication, menu selection between one or more headend and a subscriber terminal with data re-programmable and downloadable dynamic features.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graczyk's system to include a set top terminal having a microprocessor instructions for prompting generation of menus and a downloading data from one or more headend to a local storage, and wherein the settop terminal receives television program signals based on subscriber input, as taught by Banker, for the advantage of creating an efficient two-way, menu selection with dynamic re-programmable and downloadable data processing set top terminal in communication with one or more headend.

Banker fails to specifically disclose an output that accepts data signals from the modem and a modem that downloads data from one or more headend to a local storage as recited in the claim.

Palazzi discloses a television terminal comprising a television program receiver (11), a modem (4) an output (9, 10, 15) connected to the receiver (11) and modem (4), wherein the output accepts television program signals from the receiver and data signals from the modem and wherein the modem downloads data from one or more central facility (headend) to a local storage. Palazzi's system provides an efficient system for creating an interactive display terminal for accessing information stored at a central facility and for downloading data for later retrieval. See abstract, col. 3, line 64 - col. 4, line 44 and col. 6, lines 17-38

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Banker's system to include an output that accepts data signals from a modem and a modem that downloads data from a central facility (such as a headend) to a local storage, as taught by Palazzi, for the advantages of providing an efficient interactive display terminal that accesses information stored at a central facility and downloads data to a local storage for later retrieval.

Graczyk teaches upgrading a computer system with a modem, further Banker teaches the use of a modem in a set top terminal; however Graczyk and Banker are silent on a set top terminal with a hardware upgrade. Granger teaches a set top converter (claimed set top terminal) that receives a switching module, which is an upgrade module (see figures 6 and 7, col. 7, lines 20-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graczyk and Banker by having an upgrade for a set top terminal as taught by Granger in order to provide additional functionality to an existing terminal and reducing the cost of the set top terminal before the upgrade.

Claim 3 is met by the combined systems of Graczyk and Banker, wherein Graczyk discloses memory (108,110) connected to the processor (RC224) of the hardware upgrade (fig. 2).

Considering claims 4-9, the combined systems of Graczyk and Banker disclose monitoring financial news via a financial news network in col. 5, lines 3-14 (Graczyk). They fail to specifically disclose that the modem is capable of communicating with interactive service, the interactive service is outside the television program delivery

system, the interactive service is selected from the group consisting of home shopping, airline reservations, news, financial information, advertisement, home banking and interactive text, communicating with an on-line database and the on-line database is outside the television program delivery system as recited in the claims.

Palazzi discloses a modem that is capable of communicating with several interactive services and/or on-line databases wherein the interactive services/on-line databases are outside the television network. This provides a terminal with the ability to efficiently communicate with various networks, interactive services and databases. See the entire reference including but not limited to column 1, line 5 - column 4, line 45, column 5, lines 63-66 and column 9, line 60 - column 10, line 35.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Graczyk and Banker (if necessary) to include a modem capable of communicating with interactive service, the interactive service is outside the television program delivery system, the interactive service is selected from the group consisting of home shopping, airline reservations, news, financial information, advertisement, home banking and interactive text, communicating with an on-line database and the on-line database is outside the television program delivery system, as taught by Palazzi, for the advantage of providing a terminal with the ability to efficiently communicate with various networks, services and databases.

Regarding claim 10, Graczyk teaches that the ROM (108) of the modem circuitry stores data to perform the functionality of produce digitized data signals from the voice

signal and produce audio signals from the digital data, wherein the ROM stores the instructions (col. 7, ll. 58-66, col. 7-8, ll. 69-14). Consequently, Graczyk teaches software that is interactive in that the user can record audio information, wherein the ROM of Graczyk is stored in memory of the modem, which enhances functional capabilities. Graczyk teaches a processor (col. 7, ll. 9-18), which reads on processing circuitry to process the inputs associated with the software.

Claim 16 is met by the combined systems of Graczyk and Banker, wherein Graczyk discloses an expansion slot in figure 45 that accepts the interface connector as indicated in figure 41.

Claim 19 is met by the combined systems of Graczyk and Banker, wherein Graczyk discloses/illustrates the additional cards, connectors or modules in figures 42, 43 and 44. Note also that figure 45 illustrates the capability of accepting additional cards or boards or modules.

Claim 23 is met by the combined systems of Graczyk and Banker, wherein Graczyk discloses audio program reception hardware (see 18-figure 1 or 530-figure 43 or 510-figure 44).

As for claim 18, Graczyk and Banker disclose an electronic visual communication system and more particularly a multi-purpose computerized television system (Graczyk, col. 1, lines 5-10). They also disclosed that various modifications and alternative embodiments are apparent to a person skill in the art. (Graczyk, col. 36, lines 14-22). However, they fail to specifically disclose that the terminal is an HDTV terminal as recited in the claim.

The examiner takes Official Notice that HDTV terminals are notoriously old and well-known terminals in the art for receiving high-resolution television signals and these terminals can be integrated with any other television receiving apparatus.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Graczyk and Banker to include the terminal to be a HDTV terminal because it is a well-known, readily available and modifiable terminal for receiving high-resolution television signals.

As for claims 26-29, Graczyk and Banker disclose receiving television signals from broadcast and cable television stations (col. 5, lines 61-68). However, they fail to specifically disclose an operations center, one or more headends and a satellite broadcasting system as recited in the claims.

The examiner takes Official Notice that an operations center (a central facility to a headend or master headend), one or more headends and a satellite broadcasting system are notoriously old and well-known communication stations that broadcast television signals to subscribers. At these stations (headend, central facilities), television programs are received, processed and prepared for transmission to subscribers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Graczyk and Banker (if necessary) to include an operations center, one or more headends and a satellite broadcast system because these are typical places where television signals are received processed and prepared for transmission to subscribers.

6. Claims 30-42, 45-50, 55, 56 and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Palazzi (of record) and Banker et al. (Banker).

Considering claim 30, Banker discloses a television terminal (40,44, or 48) having microprocessor (128,136) instructions for prompting generation of menus, the television terminal comprising:

- a) a television program receiver (100,150) for receiving television programs from one or more headends (10);

- b) an interface (124, 126) to the television terminal for receiving and processing subscriber input (col. 5, lines 7-25);

- c) modem (col. 4, lines 40-50) capable of communicating with one or more headend (10), wherein the receiver receives television program signals based on subscriber input (see the entire reference including but not limited to col. 4, lines 40-57), wherein the terminal downloads data from one or more headends to a local storage (col. 6, line 59 – col. 7, line 3 and col. 7, lines 24-28);

- d) an output (142, TV 42) connected to the receiver (100,150) and the modem, wherein the output accepts television program signals from the receiver.

However, Banker fails to specifically disclose an output that accepts data signals from the modem and a modem that downloads data from one or more headend to a local storage as recited in the claim.

Palazzi discloses a television terminal comprising a television program receiver (11), a modem (4) an output (9, 10, 15) connected to the receiver (11) and modem (4),

wherein the output accepts television program signals from the receiver and data signals from the modem and wherein the modem downloads data from one or more central facility (headend) to a local storage. Palazzi's system provides an efficient system for creating an interactive display terminal for accessing information stored at a central facility and for downloading data for later retrieval. See abstract, col. 3, line 64 - col. 4, line 44 and col. 6, lines 17-38

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Banker's system to include an output that accepts data signals from a modem and a modem that downloads data from a central facility (such as a headend) to a local storage, as taught by Palazzi, for the advantages of providing an efficient interactive display terminal that accesses information stored at a central facility and downloads data to a local storage for later retrieval.

Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Banker's system (if necessary) to include downloading data from a headend to local storage in a television terminal via a modem since Palazzi demonstrated that modems are used to receive data for local storage in a television terminal from central facilities.

Palazzi and Banker both teaches the use of modems. Graczyk teaches upgrading a computer system with a modem, further Banker teaches the use of a modem in a set top terminal; however Graczyk is silent on a set top terminal with a hardware upgrade. Granger teaches a set top converter (claimed set top terminal) that receives a switching module, which is an upgrade module (see figures 6 and 7, col. 7,

lines 20-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graczyk and Banker by having an upgrade for a set top terminal as taught by Granger in order to provide additional functionality to an existing terminal and reducing the cost of the set top terminal before the upgrade.

Claim 31 is met by the combined systems of Banker and Palazzi, wherein Banker discloses television (42,46 or 50, figure 1) and Palazzi discloses television (15).

Claim 32 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses a connector port (10) and Banker's modulator (142) is inherently connected to television (42) via a connector port.

Claim 33 is met by the combined systems of Banker and Palazzi, wherein Banker discloses microprocessor (128, 136) and Palazzi discloses a microprocessor (5).

Claim 34 is met by the combined systems of Banker and Palazzi, wherein Banker discloses a memory (137,134) and Palazzi discloses a memory at col. 6, lines 18-45, 53-54, col. 7, lines 62-68 and col. 9, lines 20-40.

Claims 35-39 are met by the combined systems of Banker and Palazzi, wherein Palazzi discloses interactive services/on-line databases provided by the host databases that are external to the television program delivery system throughout the entire reference including but not limited to column 1, line 5 - column 4, line 45, column 5, lines 63-66 and column 9, line 60 - column. 10, line 35.

Claim 40 are met by the combined systems of Banker and Palazzi, wherein Palazzi discloses online database(s) containing travel information, stock quotation and

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other data throughout the reference including but not limited to col. 1, lines 15-23, col. 3, lines 25-60 and col. 9, line 60 - col. 10, line 35.

Claim 41 are met by the combined systems of Banker and Palazzi, wherein Palazzi discloses HDTV capability in col. 6, lines 55-64.

Considering claim 42, Banker discloses a method for delivering television programs through a television delivery system (figure 1) with menu selection of programs (figures 5-9) comprising

- a) receiving (100,150) a television program from one or more headends (10);
- b) receiving subscriber input through an interface (124, 126) within a set top terminal, the set top terminal having a microprocessor (128,136) instructions for prompting generation of menus (col. 5, lines 7-25);
- c) communicating through a modem (col. 4, lines 40-50) with one or more headend (10), comprising transmitting data based on subscriber input (see the entire reference including but not limited to col. 4, lines 40-57); and
- d) displaying television programs.

However, Banker fails to specifically disclose receiving data from one or more headend and displaying television program and/or information based on the received data as recited in the claim.

Palazzi, discloses a method comprising:

- a) receiving a television program (11) (col. 7, lines 54-61);
- b) receiving subscriber input (col. 5, lines 63-66 & col. 8, line 23 - col. 9, line 20);
- c) communicating through a modem comprising:

(c1) transmitting data based on subscriber input via (keyboard 12) (col. 7, line 62 - col. 9, line 20)

(c2) receiving data (col. 5, lines 63-66 and col. 9, lines 2-20); and
d) displaying the television program and/or information based on the received data (see the entire reference including but not limited to col. 3, line 64 - col. 4, line 16, col. 7, lines 54-61 and col. 9, lines 4-29). Palazzi's system provides an efficient system for creating an interactive display terminal for accessing information stored in remote computer databases. See abstract, col. 3, line 64 - col. 4, line 44.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Banker's system to include receiving data from one or more headend and displaying television program and/or information based on the received data, as taught by Palazzi, for the advantages of providing an efficient interactive display terminal that accesses information stored in remote computer databases and that provides a display of television programs and/or information.

Palazzi and Banker both teaches the use of modems. Graczyk teaches upgrading a computer system with a modem, further Banker teaches the use of a modem in a set top terminal; however Graczyk is silent on a set top terminal with a hardware upgrade. Granger teaches a set top converter (claimed set top terminal) that receives a switching module, which is an upgrade module (see figures 6 and 7, col. 7, lines 20-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Graczyk and Banker by having an upgrade

for a set top terminal as taught by Granger in order to provide additional functionality to an existing terminal and reducing the cost of the set top terminal before the upgrade.

Claims 45-49 are met by the combined systems of Banker and Palazzi, wherein Palazzi discloses interactive services/on-line databases provided by the host databases that are external to the television program delivery system throughout the entire reference including but not limited to column 1, line 5 - column 4, line 45, column 5, lines 63-66 and column 9, line 60 - column. 10, line 35.

Claim 50 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses that online database contains travel information, stock quotation and other data throughout the reference including but not limited to col. 1, lines 15-23, col. 3, lines 25-60 and col. 9, line 60 - col. 10, line 35.

Claim 51 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses the various memory devices at col. 6, lines 18-45, 53-54, col. 7, lines 60, and col. 9, line 60 – col. 10, line 35.

Claim 55 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses processing of stored digital data throughout the reference including but not limited col. 6, lines 18-64 and col. 9, lines 20-40.

Claim 56 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses stored data concerning banking services (economics) and any other local national or regional information services (reference) throughout the entire reference including but not limited to col. 9, line 60 - col. 10, line 4.

Claim 58 is met by the combined systems of Banker and Palazzi, wherein Palazzi discloses remote input from keypad (16), keyboard (12) or the keyboard connected to the CPU via a wireless link (see illustration in figure 1).

Claim 59 is met by is met by the combined systems of Banker and Palazzi, wherein Banker discloses menu generation in figures 5-9 and Palazzi discloses generating menus at col. 9, lines 13-40 and col. 10, lines 16-18.

8. Claims 43-44 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker and Palazzi in view of Vogel (of record).

Considering claims 43-44, Banker and Palazzi disclose receiving various types of data but they fail to specifically disclose that the data is information concerning television program and that the information is selected from a group consisting of quizzes, facts, geographical information and product information as recited in the claims.

Vogel discloses data/information concerning television programs (program schedule). Program schedule information includes facts and description of television programs. See the entire reference including but not limited to col. 3, lines 45-65 and col. 8, lines 36-46.

It would have been obvious to one of ordinary skill in the art at the time the invention was made at the time the invention was made to modify the combined systems of Banker and Palazzi to include information concerning a television program and that the information is to be selected from a group consisting of at least quizzes,

facts, geographical information and product information, as taught by Vogel, for the typical advantage of receiving program schedule information about programs to inform viewers about current and future television programs.

Claim 57 is met by the combined systems of Banker, Palazzi and Vogel, because Vogel discloses monitoring for reception of the program schedule information and then retrieving digital data after the reception of the program schedule information in col. 3, line 2 - col. 4, line 5.

8. Claims 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker and Palazzi in view of Sprague (of record).

Considering claims 52 -54, the combined systems of Banker and Palazzi disclose that various types of memory devices may be used (Palazzi, col. 6, lines 34-38).

However, they fail to specifically disclose that the memory device is a CD-ROM as recited in the claims.

Sprague discloses that CD-ROMS are conventional and commercially available memory devices for storing data or information. See col. 2, lines 6-39 and col.19, lines 1-16.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combined systems of Banker and Palazzi to include the memory device to be a CD-ROM, as taught by Sprague, for the typical advantage of using a conventional and commercially available device to store data.

9. Claims 60, 63, and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granger in view of Graczyk and Wachob (U.S. Patent 5,234,494).

Regarding claim 60, Granger teaches a set top converter (claimed set top terminal) that receives a switching module, which upgrades the capabilities of the converter (see figures 6 and 7, col. 7, lines 20-27).

Granger teaches receiving and displaying television signals on a television (col. 6, ll. 52-59). Granger is silent on the set top converter receiving compressed and decompressing, a set top terminal interface for enabling communication with the set top terminal, and a modem for providing on-line communications with a content provider, where the modem is a card insertable into the set top terminal.

In analogous art, Wachob teaches receiving and decompressing television signals for display (col. 6, ll. 7-24). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Granger by receiving compressed signals and decompressing the signals for display as taught by Wachob in order to more efficiently use bandwidth in the channel, thereby enabling more information to be sent to the user.

In analogous art, Graczyk teaches a computer upgrade capabilities, where Graczyk teaches a modem for providing on-line communications with a provider of content, wherein the card is insertable into the device (col. 6-7, ll. 62-8, see fig. 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Granger by having an insertable card into a device as taught by Graczyk in order to provide the ability to interface other circuitry for telephone

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conferencing of a local area network or other communications path (Graczyk: col. 2, ll. 63-66).

The combination of Granger and Graczyk teaches an interface for enabling communication with the set top terminal in that the card is insertable into the device, as discussed above.

Regarding claim 63, the combination of Granger, Graczyk, and Wachob teaches a microprocessor connected between the interface and the modem (Graczyk: col. 7, ll. 9-18).

Regarding claim 64, the combination of Granger, Graczyk, and Wachob teaches a tuner for selecting a data stream, a demodulator, and a demultiplexer (col. 6, ll. 7-24), given the proposed combination; the data is coupled to the upgrade. However Granger, Graczyk, and Wachob are silent on an encrypted data stream. Official Notice is taken that encrypted data streams are well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Granger, Graczyk, and Wachob by decrypting data in order to enhance the security of information.

10. Claims 61 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Granger, Graczyk and Wachob in view of Pond (U.S. Patent 5,329,590).

Regarding claim 61, Granger, Graczyk, and Wachob are silent on the content being something other than a television program signals. In analogous art, Pond teaches communicating with the headend for sending billing information and

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downloading a list of program events (col. 8, ll. 44-59), which is content other than said television program signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Granger, Graczyk, and Wachob by retrieving information other than television signals as taught by Pond in order to provide additional information to the user.

Regarding claim 62, the combination of Granger, Graczyk, Wachob, and Pond has been addressed in the discussion of claim 61; Pond teaches downloading data from a central provider to local storage in order to display the receiving information to the viewer (col. 8, ll. 44-59).

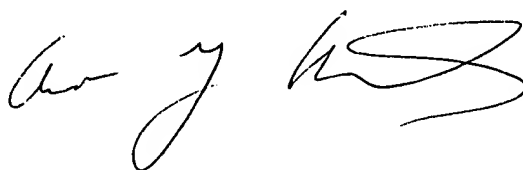
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Y Koenig whose telephone number is (703) 306-0399. The examiner can normally be reached on M-Th (7:30 - 6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ayk

A handwritten signature in black ink, consisting of a stylized 'A' followed by a 'y' and a large, sweeping 'S'.